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TSCA Confidential Business Information Center (7407M) EPA East - Room 6428 Attn: Section 8(e) U.S. Environmental Protection Agency 1200 Pennsylvania Avenue, NW Washington, DC 20460-0001

**Attention: TSCA 8(e) Coordinator** 

RE: TSCA 8(e) Submittal for myelodysplastic syndromes (MDS) among people reporting exposure to toluene/xylene and other independent risk factors.

Dear Sir/Madam:

Chevron Corporation is submitting this notice pursuant to Section 8(e) of the Toxic Substances Control Act (TSCA). This submittal relates to risk factors reported by individuals who have been diagnosed with myelodysplastic syndrome or subtypes of that disease. Chevron Corporation has not made a determination as to whether a significant risk of injury to health is presented by the findings.

Chevron's Epidemiology group was asked to review a draft study report entitled, "Case-Control Study of MDS and Benzene in Shanghai Workers." The report was prepared by ExxonMobil Biomedical Sciences, Inc. (XOM). Among the findings reported by the authors were statistically significant odds ratios for toluene (CAS RN 108-88-3) and xylene (CAS RN 1330-20-7) exposure in patients with Myelodysplastic Syndrome. Other MDS subtypes like refractory cytopenia with unilineage dysplasia (RCMD), refractory anemia with excess blasts (RAEB), and allinclusive refractory anemia (RA) were not statistically different following toluene or xylene exposure.

A previous TSCA 8(e) is believed to have been submitted for the findings in this same draft study report by Lyondell Chemical Company on March 30, 2015 in which it was reported that RCMD was statistically significantly linked to benzene exposure.

Other independent risk factors observed with positive and statistically significant odds ratios are included below:

Risk Factor (as identified in the XOM report)	Type of MDS showing Statistically Elevated Odds Ratio
Crops, raised	All MDS combined (univariable analysis)
Farm residence	All MDS combined (univariable and multivariate analysis); RCMD; all
	inclusive RA; all inclusive multi-lineage MDS
Livestock	All MDS combined (univariable analysis); all inclusive RA
Fertilizer	All MDS combined (univariable analysis); RAEB
Herbicides	All MDS combined (univariable and multivariate analysis); RCMD; all
	inclusive multi-lineage MDS

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Insecticides	All MDS combined (univariable analysis)
Organophosphates	All MDS combined (univariable analysis)
Fuels	All MDS combined (univariable analysis)
Paint	All MDS combined (univariable analysis)
Tuberculosis	RCMD; all inclusive multi-lineage MDS
Ever smoked	RAEB; all inclusive RA

To the best of our knowledge, this is the first time that these increases have been reported among a study population for these risk factors and myelodysplastic syndromes.

This report has been compiled based on information available as of the date of filing. Chevron reserves the right to supplement the data contained in this report, and to revise or amend any conclusions drawn there from, as necessary.

For questions or concerns, please contact Denise Roesh via email at <u>denise.roesh@chevron.com</u> or by phone at (713) 654-5643.

All the Best,

Denise M. Roesh Corporate TSCA Coordinator

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